

Further Education & Training Certificate: Mining Operations NQF Level 4

Introduction The Production Supervisor plays a critical role in the mining industry. Mining activities are often conducted under dangerous and difficult conditions, which have to be managed appropriately in order to preserve the lives of those working in the industry, and ensure operational efficiency.

Description: The Production Supervisor must adapt continually to changing physical conditions in his or her area of responsibility e.g. geology and blast damage. He/she is accountable for the occupational health and safety of the team, as well as for achieving production targets. Learners credited with this Qualification will be able to:

- Communicate and solve problems by applying mathematical practical applications in a variety of ways.
- Adhere to Occupational Health, Safety and Environmental requirements.
- Supervise the extraction of minerals to meet production targets, taking into account the Occupational Health, Safety, Quality and Environmental requirements.
- Interact with Technical Services Departments to optimise the mining process.

While there are many role players in the mining industry, the Production Supervisor (Pit Supervisor) can arguably be considered one of the most important role players in the mining process.

SAQA Qualification ID: 74490

Target group: New employees and or existing employees.	Certification: If competent a competence certificate will be issued by MQA	Duration: 200 Days Days can be reduced depending on RPL
Entry Level Requirements: ▪ Minimum Literacy and Numeracy ABET 4 or NQF 1 or RPL, Grade 9		

Fundamental: (Could be RPL'd ± 2 days per unit standard)

- All 56 credits in the Fundamental Component are compulsory.

Core:

- All 54 credits in the Core Component are compulsory.

Elective: (Could be RPL'd ± 2 days per unit standard)

- A minimum of 50 credits at Level 3 or above must be selected from the list of elective unit standards that meet site-specific requirements.

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LEVEL	TYPE	CREDITS	U/S	Description
Level 3	Core	5	120335	Conduct an investigation into workplace incidents
Level 3	Core	3	120331	Demonstrate knowledge pertaining to fires in working places
Level 4	Core	3	336945	Conduct an issue-based risk assessment within a workplace
Level 4	Core	4	336919	Demonstrate an understanding of continual improvement in the mining cycle
Level 4	Core	4	336908	Demonstrate an understanding of essential basic engineering principles that are applicable to the mining environment
Level 4	Core	7	336959	Demonstrate an understanding of labour supervision and production procedures for supervisors in the workplace
Level 4	Core	8	336943	Demonstrate an understanding of mining related strata control issues impacting on mining practice
Level 4	Core	8	336940	Demonstrate an understanding of strata control theory and terminology relevant to mining environment
Level 4	Core	4	336904	Demonstrate knowledge of basic mining economics
Level 4	Core	3	336910	Demonstrate knowledge of environmental awareness in the mining industry
Level 4	Core	5	336899	Demonstrate knowledge of legislation impacting on mining environment
Level 3	Fundamental	5	119472	Accommodate audience and context needs in oral/signed communication
Level 3	Fundamental	5	119457	Interpret and use information from texts
Level 3	Fundamental	5	119467	Use language and communication in occupational learning programmes
Level 3	Fundamental	5	119465	Write/present/sign texts for a range of communicative contexts
Level 4	Fundamental	6	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems
Level 4	Fundamental	5	119462	Engage in sustained oral/signed communication and evaluate spoken/signed texts
Level 4	Fundamental	5	119469	Read/view, analyse and respond to a variety of texts
Level 4	Fundamental	4	9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts
Level 4	Fundamental	5	119471	Use language and communication in occupational learning programmes
Level 4	Fundamental	6	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues
Level 4	Fundamental	5	119459	Write/present/sign for a wide range of contexts
Level 3	Elective	2	260982	Acquire authorization needed for small-scale prospecting and mining
Level 3	Elective	4	336980	Apply a computerized management system in a production mining environment
Level 3	Elective	8	257095	Carry out basic surveying and calculations in surface excavations
Level 3	Elective	3	337019	Conduct mineral and ore sampling on a small-scale mine
Level 3	Elective	15	110125	Control operations in a blasting section in an underground coal mine
Level 3	Elective	4	115600	Demonstrate the co-ordination of a conveyor system operations in an underground coal mine

Level 3	Elective	7	244407	Lift and move a load using mechanical lifting equipment
Level 3	Elective	3	336906	Plan for authorisation of small-scale prospecting and mining operations
Level 3	Elective	3	336960	Plan logistics and services for a small-scale mine
Level 3	Elective	4	253016	Read and understand a mine plan and transfer recorded information onto mine plans
Level 4	Elective	7	336909	Apply strata control techniques and processes in surface excavation
Level 4	Elective	6	230017	Carry out blasting environmental testing
Level 4	Elective	9	336941	Compile an integrated environmental impact management plan for a small-scale mine
Level 4	Elective	6	336962	Conduct over and underground coal mine inspection in a production section
Level 4	Elective	10	336963	Conduct prospecting relevant to small-scale mining
Level 4	Elective	7	336961	Construct and maintain roads in surface excavations
Level 4	Elective	4	336979	Control stonework operations in an underground coal mine
Level 4	Elective	5	336944	Coordinate loading operations in an underground coal mine
Level 4	Elective	10	336903	Coordinate surface excavation operation
Level 4	Elective	7	336999	Coordinate the development of surface excavation operations
Level 4	Elective	5	337039	Coordinate transportation operations in an underground coal mine
Level 4	Elective	8	336907	Demonstrate an understanding of development, pre-ledging equipping, ledging, equipping and stoping processes
Level 4	Elective	9	336966	Demonstrate an understanding of extraction and the beneficiation of minerals on surface excavations
Level 4	Elective	4	336911	Demonstrate an understanding of mine geology
Level 4	Elective	8	336964	Demonstrate an understanding of roles and responsibilities of a production supervisor in a mining environment
Level 4	Elective	8	336900	Demonstrate an understanding of strata control practice in an underground hard rock mine
Level 4	Elective	7	336965	Demonstrate an understanding of surface excavation
Level 4	Elective	6	336939	Demonstrate an understanding of the mine health and safety Act, for small-scale mining
Level 4	Elective	10	115608	Demonstrate an understanding of ventilation systems in an underground coal mine
Level 4	Elective	4	336981	Demonstrate an understanding to control strata conditions in an underground coal mine
Level 4	Elective	12	336916	Demonstrate knowledge and application of ground stability for small scale mining
Level 4	Elective	4	336915	Demonstrate knowledge and understanding of mineral valuation
Level 4	Elective	8	336912	Demonstrate knowledge and understanding of short term mine planning
Level 4	Elective	5	336902	Demonstrate knowledge and understanding of the starting up and closing off procedures for an underground workplace
Level 4	Elective	4	336905	Demonstrate knowledge and understanding of underground horizontal transport operation
Level 4	Elective	24	257075	Design blasts for surface excavations
Level 4	Elective	7	337000	Develop a short term surface excavation scheduling
Level 4	Elective	7	336914	Implement and maintain services and infrastructure in surface excavation
Level 4	Elective	4	336920	Implement and monitor grade and quality control for surface excavations
Level 4	Elective	9	336942	Plan a mineral processing plant for a small-scale mine
Level 4	Elective	6	336901	Plan run of mine excavation process for a small-scale mining operation
Level 5	Elective	18	336913	Compile a strategic plan for a small-scale mining